

## New Main Claim

1. Method for determining of parameters, which are characteristic for the optical behavior of a liquid crystal cell, such as in particular of the tilt angle of the liquid crystal molecules in the cell and possibly also the liquid crystal layer thickness of the liquid crystal molecules, by comparing a measured transmission course measured depending on a varying angle of irradiation without considering possible symmetry properties of this course with a calculated curve of the transmission based on a mathematical model relating to the behavior of the cell depending on its angle of refraction for pre-given parameters, wherein also modulation effects based on multiple reflections are taken into consideration in addition to birefringence effects in the liquid crystal layer of the cell, which modulation effects based on multiple reflections become effective in particular in a thin liquid crystal layer, wherein the calculated curve is varied by changing at least one of the parameters until a good adaptation of the calculated curve of the transmission is accomplished relative to the measured course of the transmission, whereupon the parameter pre-given for this adaptation as in particular the tilt angle and possibly also the layer thickness are read out as the actually to be determined parameter of the given cell.